

In the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application. Please amend claims 94, 96, 104, 107-108, and 112-113. Please cancel claims 105 and 106 as shown.

Claims 1-93 (Cancelled)

94. (Currently Amended) A method for therapeutically regulating intraocular pressure by selectively inhibiting sodium-hydrogen antiport activity in the eye of a human or animal subject in need of antiport regulation, the method comprising:

administering to ciliary epithelial cells of the eye of the subject having a trabecular network, a pharmaceutical composition, which is an antiport-selective inhibitor comprising a pressure-modulating amount of at least one sodium-hydrogen exchange (NHE) inhibitor, wherein the NHE inhibitor functions as a selective inhibitor at very low concentrations, displaying an inhibitor constant (K_i) characteristic of NHE-1 antiport blockers; thereby regulating aqueous humor formation; and reducing net inflow; and thereby inhibiting sodium-hydrogen antiport activity.

95. (Previously Presented) The method of claim 94, wherein the at least one sodium-hydrogen exchanger (NHE) inhibitor is a sodium-hydrogen exchanger isoform 1 (NHE1) inhibitor.

96. (Currently Amended) The method of claim 94, wherein the NHE inhibitor is ~~selected from the group consisting of an amiloride analogue, ethyl-isopropyl-amiloride (EIPA), dimethylamiloride (DMA), HOE694, methylpropylamiloride, and derivatives thereof.~~

97. (Previously Presented) The method of claim 94, wherein the pharmaceutical composition further comprises an inhibitor of a Na⁺-K⁺-2Cl⁻ symport.

98. (Previously Presented) The method of claim 97, wherein the Na⁺-K⁺-2Cl⁻ symport inhibitor is bumetanide.

99. (Previously Presented) The method of claim 94, wherein the pharmaceutical composition further comprises an anion exchanger isoform 2 (AE2).

100. (Previously Presented) The method of claim 99, wherein the inhibitor of anion exchanger isoform 2 is 4,4'-diisothiocyanatostilbene-2,2'-disulfonate (DIDS).

101. (Previously Presented) The method of claim 94, wherein the pharmaceutical composition further comprises at least one compound selected from the group consisting of miotics, beta blockers, carbonic anhydrase inhibitors, and precursor prostaglandins.

102. (Previously Presented) The method of claim 94, wherein administration of the pharmaceutical composition is topical, intravitreal, via an ocular insert, or via an implanted reservoir.

103. (Previously Presented) The method of claim 94, wherein the human or animal subject has glaucoma.

104. (Currently Amended) The method of claim 94, wherein the human or animal subject ~~is subject to glaucoma~~ has elevated intraocular pressure or low intraocular pressure, as compared with normal pressure for that patient, such that antiport regulation therapy is needed.

Claims 105-106. (Cancelled).

107. (Currently Amended) The method of claim ~~105~~ 96, wherein the NHE inhibitor is selected from the group consisting of an ~~amiloride~~, ethyl-isopropyl-amiloride (EIPA), dimethylamiloride (DMA), HOE694, and methylpropylamiloride, and derivatives thereof.

108. (Currently Amended) A therapeutic method for regulating salt uptake or release by ciliary epithelial cells in an eye of a human or animal subject in need of regulating salt uptake or release in the cells, wherein said subject has a trabecular network, the method comprising selectively controlling or modulating the function of one or more antiports of the ciliary epithelial cells of the aqueous humor by:

administering to the cells a modulating amount of a pharmaceutical composition,
which is an antiport-selective inhibitor consisting essentially of an NHE inhibitor, wherein the NHE inhibitor functions as a selective inhibitor at very low concentrations, displaying an inhibitor constant (K_i) characteristic of NHE-1 antiport blockers; thereby
regulating salt uptake or release in aqueous humor formation; and

~~reducing net inflow, and thereby inhibiting salt uptake or release by the ciliary epithelial cells.~~

109. (Previously Presented) The method of claim 108, wherein the modulating effect is reversible upon cessation of administration of the NHE inhibitor.

110. (Previously Presented) The method of claim 108, wherein the pharmaceutical composition is administered to the cells *in vitro* or *in vivo*.

111. (Cancelled).

112. (Currently Amended) The method of claim 108, wherein the NHE inhibitor comprises ~~amiloride or an amiloride derivative~~ analogue.

113. (Currently Amended) The method of claim 112, wherein the amiloride analogue ~~comprises~~ is selected from the group consisting of either amiloride, or ethyl-isopropyl-amiloride (EIPA), dimethylamiloride (DMA), HOE694, and methylpropylamiloride

114. (Cancelled).

115. (Previously Presented) The method of claim 108, wherein an anion is transferred into the ciliary epithelial cells of the aqueous humor to block native chloride channels.

116. (Previously Presented) The method of claim 115, wherein the anion comprises cyclamate.